PLASTIC INDUSTRY AUSTRALIA

(Based on exchange rate USD $1 = AUD $ 1.31)

PREPARED BY:

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Note: Statistics used in this publication were taken from a number of sources including Australian Bureau of Statistics, Australian Customs publications, PACIA, industry reports (IBIS and others) and prior Commercial Service publications.

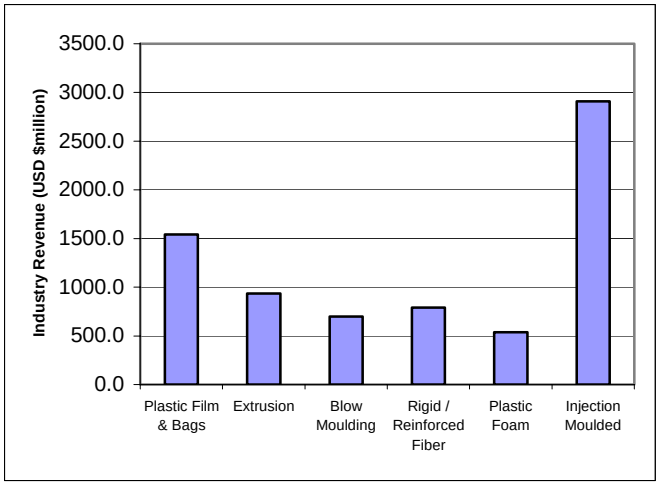
SUMMARY:

Plastic manufacturing is one of Australia's key manufacturing industries accounting for around 7% of manufacturing activity. Covering a very broad range of products plastics are key in the food and beverage, automotive, marine and packaging market sectors. The Australian industry is quite mature with many of the segments in the industry growing at or slightly less than the rate of the local economy. Given its mature nature products that will do best into this market are those that present new or innovative technology. The end users of plastic manufacturing machinery are often quite cost conscious, with machinery that can reduce the cost per unit production being sought after. There is very little equipment manufactured in Australia resulting in most machinery sourced from international markets. Estimates place the annual import of equipment at around USD $135 million, with US being the second largest supplier after Germany.

MARKET OVERVIEW:

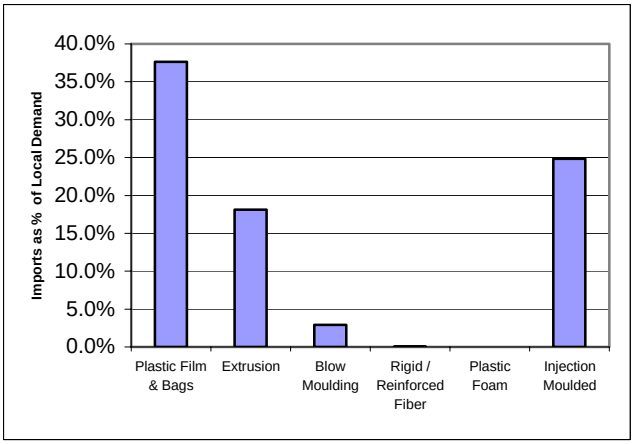
- The manufacture of plastic goods represents a key area of Australian manufacturing adding significant value to the Australian economy. As in many other economies, plastics form a large percentage of the inputs into other manufactured items.
- Overall plastic manufacturing represents around USD $7,500 million of revenue and directly employs almost 41,000 people in around 1,200 workplaces.
- The Australian plastics industry covers a number of segments including plastic film and bags, extrusion, blow molding, rigid and reinforced fibers, foam and injection molding.
- As with other industries, the pressure to reduce costs has resulted in many smaller businesses either closing or being acquired by other businesses. The drive for productivity and further cost reduction is an ongoing issues for the industry, particularly with the import of product from Asia.
- Transportation costs for many plastics products comprised largely of air (i.e. plastic pipe and blow molded articles) keep many companies in business, as is the growth of some niche areas in plastics manufacturing – most notably the rigid and reinforced fiber market segment.
- Manufacture of plastic manufacturing equipment has largely left Australia due to the high costs of production and machinery R & D in a relatively small market for the equipment. This has meant that virtually all of the plastic manufacturing equipment sold in Australia is imported.

INDUSTRY STATISTICS:

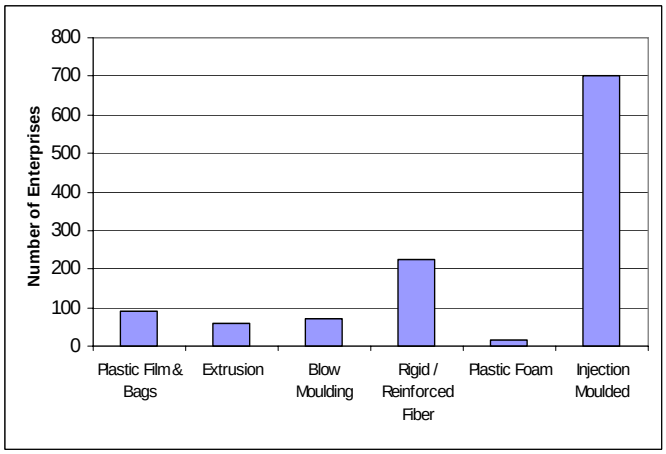


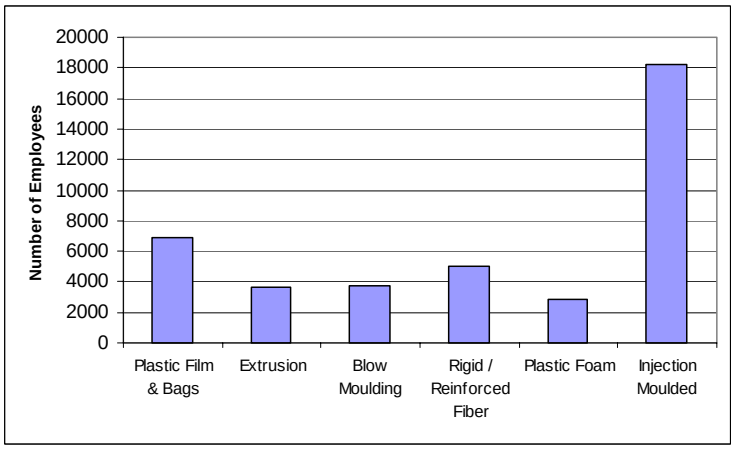
The segmentation of the Australian plastics industry is well illustrated in the graph to the left. Injection molding is twice as large as its nearest competitor, plastic film and bag manufacture. Despite its large size, the injection molding industry is currently shrinking at around 4% per year, mostly due to increase in foreign injection molded components. Most of the other segments are growing below the country's economic growth rate of 3.5% suggesting the industry is not only mature but is being displaced in some segments. The exception to this is the rigid / reinforced fiber segment which is growing at 10% per annum.

As suggested by the sluggish growth rates, the industry segments with the largest levels of imports are the plastic film and bags and the injection molded segments. Plastic film and bag manufacturers rely on economies of scale to reduce their unit cost of production. As volumes are displaced by imports, the Australian manufacturers' cost per unit increases. Injection molding is another volume-intensive business where the relatively high costs of molds are amortized over large product runs. Film and bags, in particular, can be packed densely to reduce freight costs. This overcomes the traditional advantage of domestic Australian producers: high freight cost of imports.



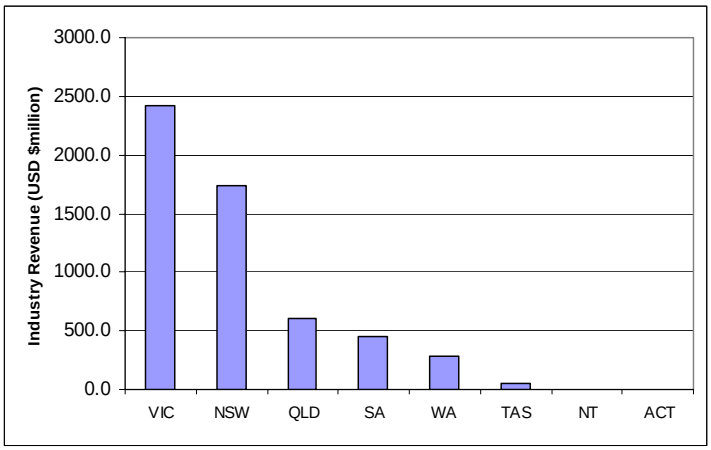
The graphs below show the number of enterprises undertaking plastic manufacturing and the number of employees working in each particular industry segment. The effects of industry consolidation are particularly prevalent in the film and bag, extrusion, blow molding and foam segments, where the more limited range of products requires large volumes of product to be manufactured. The rigid / reinforce fiber and injection molding companies are smaller by the nature of the variability within their manufactured products. As indicated above, global sourcing practices are affecting Australian injection molding companies. The rigid / reinforced fiber segment is less affected given the larger sized and more varied products they tend to make. This weight and specialization increases the freight costs for international competitors.





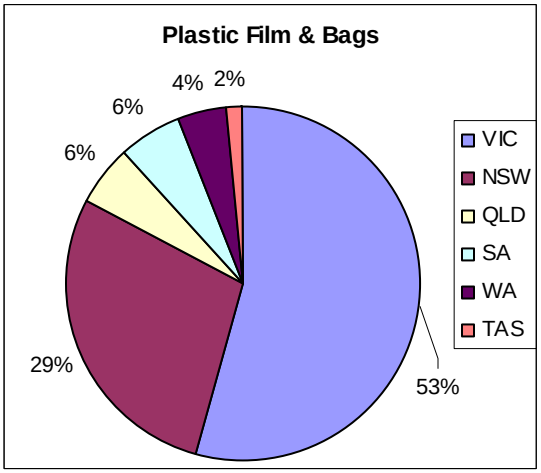
INDUSTRY GEOGRAPHIC LOCATION:

The chart at right indicates revenue from Australia's plastic manufacturers is concentrated in two Australian states – Victoria and New South Wales. This concentration of manufacturers is reflected in the location of equipment suppliers and those providing services to the plastics industry. The reasons for the concentration are historical: location of population and availability of feed stocks. To some extent the industry is expected to shift towards the states of Queensland and Western Australia, as population, manufacturing opportunities and feed stock sources move.



INDUSTRY SEGMENT INFORMATION:

Bags and Films



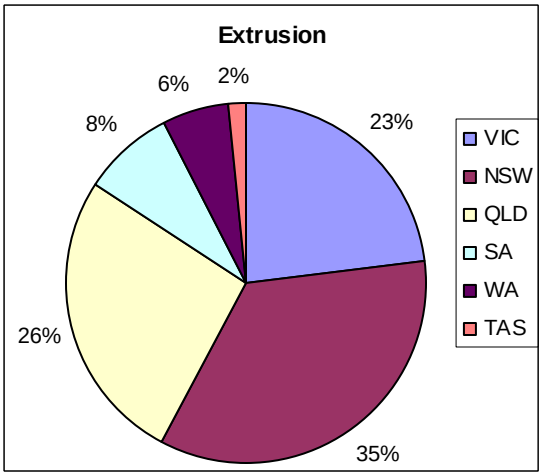
Plastic bag and film manufacturing is currently being squeezed by a number of factors. Aside from the increasing level of imports there is a substantial movement targeting the environmental impact of plastic bags. This has led to a number of "plastic bag-free suburbs" across the country and the significant reduction in plastic bags being offered by retailers to consumers – most notably at supermarkets.

Whilst bag and film manufacturers need to provide quality and consistency, price drives the purchasing decision. Food packaging accounts for around half the use of these materials, and the most common used materials include LDPE, HDPE and polypropylene. This is one of the more concentrated segments with four companies accounting for around 40% of production.

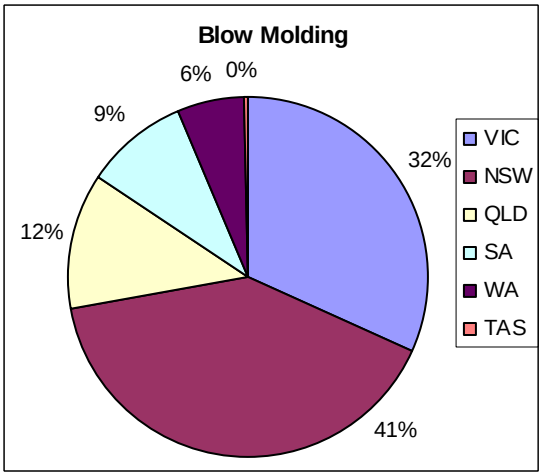
Extrusion

Extrusion is the most concentrated of the plastics segments, dominated by two suppliers Iplex and Vinidex, who together account for around 75% of total industry sales. Most of these products 80% comprise PVC and HDPE pipes. The biggest user of these products is civil construction (around 35%), followed by plumbing (28%), rural (20%) and mining & industrial (10%). The fortunes of this industry are most closely related to the amount of construction, housing and mining work taking place. While all have seen strong growth, large projects such as the Wimmera Mallee pipeline (6000 miles of PVC pipe), can significantly affect the industry.

The wider geographic distribution of this reflects the strength of demand from Queensland and Western Australia's mining sectors.



Blow Molding



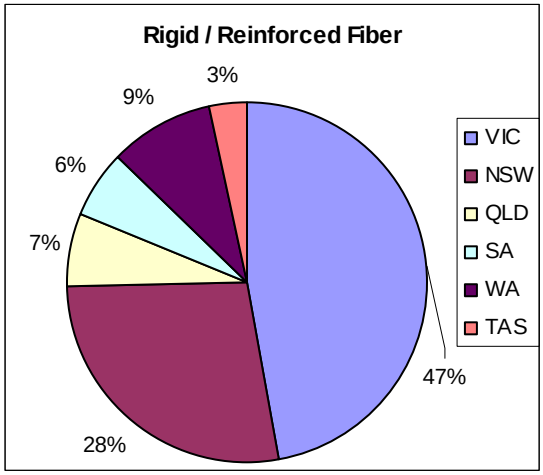
Blow molding is closely linked to the food and beverage industry, which accounts for around 70% of production. Other important industries include the cleaning products and paint and chemical manufacturers who sell their products in blow molded containers.

Mostly spread across the manufacturing states of Victoria and New South Wales, blow molding is another very concentrated industry. Around 85% of this industry is controlled by five companies – Pratt Holdings (45%), Owen Illinois (20%), Amcor (10%), Plaspak (8%) and Brickwood (4%).

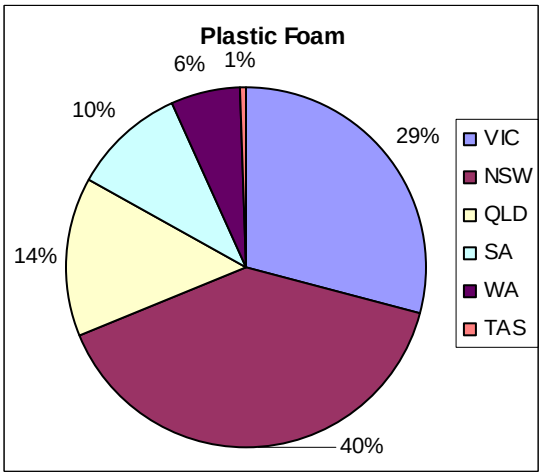
More so than other segments this area is looking for product innovation to drive future growth. Whether it is increasing product life, packing difficult products or using one machine for many products – companies are looking for new technologies to increase market share over their competitors and substitutes such as glass.

Rigid / Reinforced Fiber

Although it is one of the smallest segments for machinery manufacturers, it has the most attractive prospects. Rigid / Reinforced Fiber manufacturers are the least affected by imports given the nature of their work – small volume runs, large transportation cost, significant variability between jobs. These characteristics give the industry the second largest number of enterprises and a substantial growth rate (10%) reflecting the demand for its products. Many of these products are quite technical -- large boat hulls, turbine blades, etc. – and require specialized machinery. Because they rely less upon the size of operation, new manufacturing plants of these products are likely to emerge – particularly in the growth states of Queensland and Western Australia. Most products are made of polyester (80%) with the balance being a variety of non-polyesters. Construction (35%), motor vehicles (23%) and boat building (22%) are the three largest end users of these products.



Foams

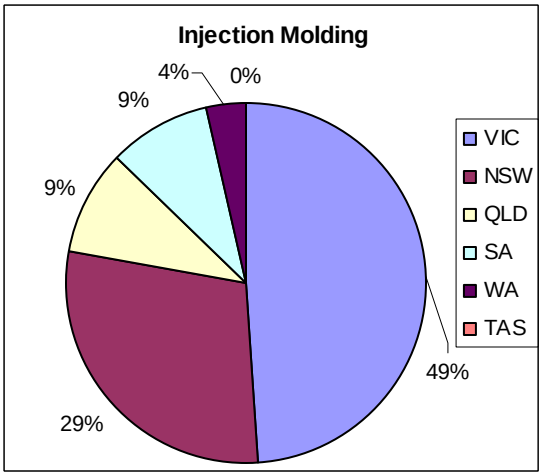


The most concentrated segment is plastic generated foams, with fewer than 20 manufacturers in Australia. Products are divided between polyurethane (45%) and expanded polystyrene (55%). Foam products are split between beds (20%), furniture (20%), food packing (20%), automotive (15%), insulation (10%) and other (15%).

While this product is little affected by imports due to its nature, the industry is only growing at around the same rate as the economy 3.5%. Given the concentration in manufacturing companies, it probably represents one of the least attractive market segments. Some of the large players include Pacific Brands, Huntsman, Huhtamaki and the Joyce Corporation.

Injection Molding

Despite being the largest segment by revenue (twice as large as bags and film) and having the largest number of enterprises (more than 700) – it is one of the more threatened plastic manufacturing segments. As indicated earlier growth in this segment is estimated at –4% and imports comprise around 25% of injection molded products bought in Australia.



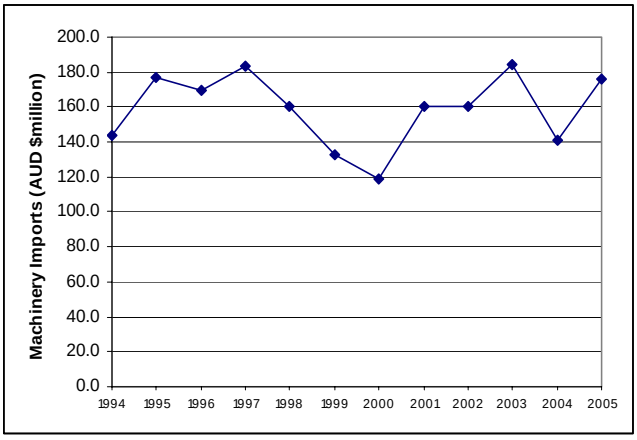
By revenue, two of the larger end users of injection molding parts and components are the automotive and house wares industries. Both of these industries are under pressure from international competition and moves towards global supply chains.

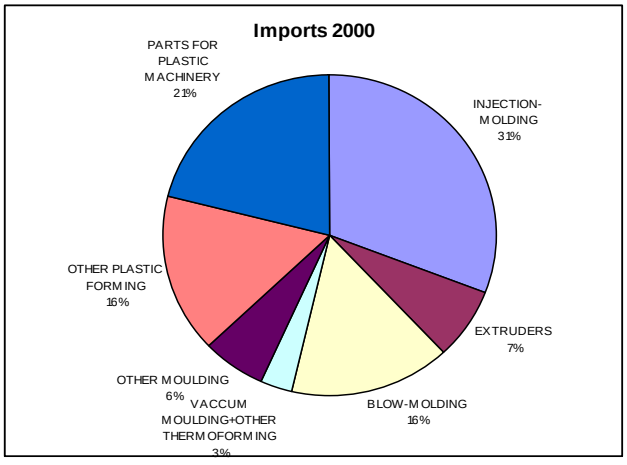
New technology that allows molders to increase strength to weight ratios, extend product intricacy, improve consistency of product and reduce waste are all looked upon favorably. This is another segment where innovative products may do well.

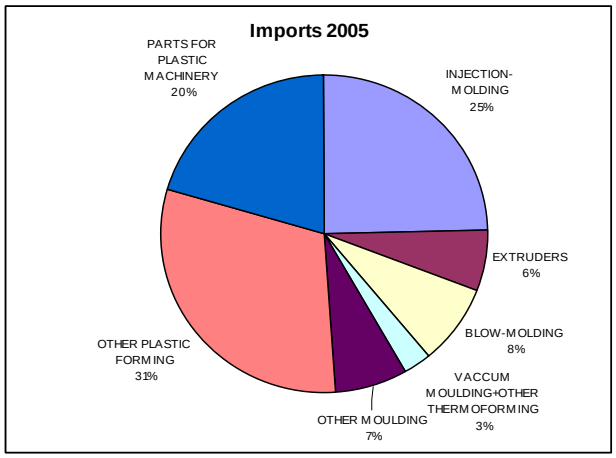
INDUSTRY COMPETITION and U.S. POSITION:

As indicated in an earlier section, the size of the Australian plastics machinery market has resulted in there being no local manufacturers of plastic making machinery. Virtually all machinery is imported.

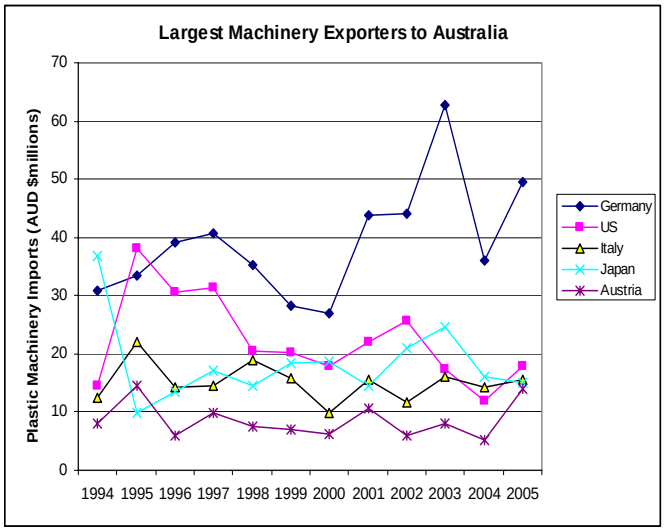
There has been a healthy market for machinery for the plastic manufacturing industry from overseas suppliers. The graphs below shows the overall import figures for plastic production machinery (HS codes 8477.10, 8477.20, 8477.30, 8477.40, 8477.59, 8477.80 and 8477.90), as well as snapshots of the market from 2000 and 2005.

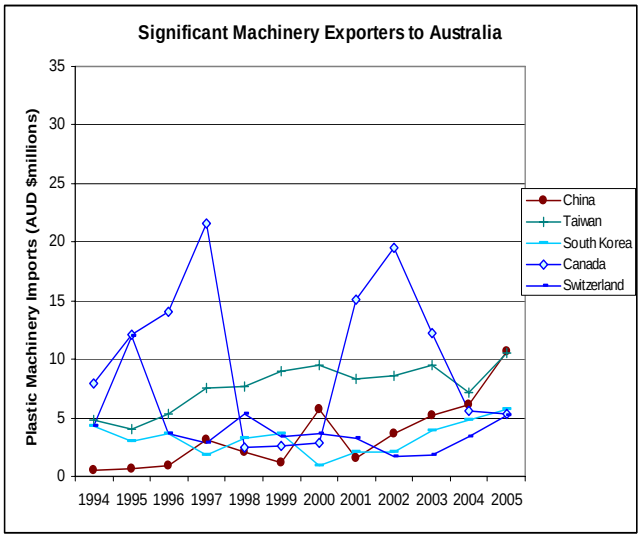






American suppliers of plastics equipment have been well regarded in Australia and account for a significant volume of imported equipment. The U.S. is the second largest exporter to Australia after Germany. Other large exporters of this equipment include Italy, Japan and Austria. More recently there have been increasing levels of imports of Asian equipment suppliers notably China, Taiwan and South Korea. Details of the relevant exporting positions of the top 10 exporters to Australia are shown in the graphs below. These countries account for between 80 and 85% of imports in any one year.





- Variations in import volumes are shown in Australian dollars for consistency over the last 10 years, and it is currency fluctuations that to some extent explain the variation in exports from a particular country in a particular year.

KEY INDUSTRY CONCERNS / DRIVERS / BEST PROSPECTS:

- The key issue for many of those buying plastic machinery is its effect on their overall production costs. Larger industry players especially are likely to be more concerned with the issue of driving their cost per produced item lower.
- Machinery pricing is a key driver for this market, particularly amongst the injection molding companies. Many of these groups operate under contracts to produce components. Missing a large tendered contract can close these businesses.
- For more routine plastic manufacturing equipment, price has become a strong determinant. Whilst very good equipment might last 20 years, and less expensive equipment 5 years, the future horizon has decreased for many companies.
- New technology, particularly in blow molding, rigid/reinforced fiber and injection molding is regarded highly. Innovations that allow companies to produce shorter batch runs profitably, do more complex manufacturing and reduce cycle time, feedstock and/or labor are likely to sell successfully. The level of technology understanding is high, as is the understanding of financial options and considerations.
- Much of the equipment deployed in Australia is considered old compared to that in other parts of the world. This is due to companies being unwilling to invest given the uncertainties of future production, and the availability of very good technical assistance / repairs. Equipment or technology that can be retrofitted or that assists with repair and maintenance may sell well in Australia.
- There is strong consideration given to ease and economics of plastic product recycling. Products that facilitate the later recycling of products may be of interest to Australian companies.

EQUIPMENT SOURCING and PURCHASING:

- Australian plastic manufacturing companies are sophisticated buyers of equipment. Often they will do a considerable amount of research before committing to a particular piece of equipment. The buying cycle can in some instances be extended.
- Given the lack of local manufacturers, Australian companies are used to dealing with overseas suppliers and larger companies regularly send plant engineers on investigation visits internationally. Australians are regular attendees are shows such at NPE and the K Show.
- Many of the larger plastic machinery companies that sell product in Australia have established a presence in Australia through a representative office or local agent. Having such a presence is considered very favorably given the concerns about product support and spare parts.
- The purchase of large capital equipment will often involve a bank or commercial institution.
- Australian companies (like US buyers) are comfortable with quotations and contracts and may seek to procure equipment through tender or competing bid processes.

MARKET ACCESS:

- There are no quota limits on the import of plastic manufacturing equipment into Australia
- The import tariff on this kind of equipment was eliminated as a result of the U.S. - Australia Free Trade Agreement that came into force on 1 January 2005. Tariffs for other exporters to Australia (aside from Singapore, Thailand, New Zealand which have FTAs with Australia) are 5%.
- Australia has a goods and services tax applicable on all equipment. This is set at 10% of the landed cost price and includes machinery cost, shipping, customs clearance and other costs that might be payable.

MARKET ENTRY:

We recommend that U.S. businesses with plastic manufacturing equipment undertake some research before considering entry to the Australian market. As indicated earlier, Australian companies procure from a wide range of suppliers and carefully compare product offerings on price as well as functionality. The industry is mature and the presence of many international players provides significant competition for standard equipment. A number of the companies supplying Australia have well-established brands that can present obstacles to new entrants. At the same time, Australian companies can be very receptive to new concepts and product innovations. The U.S. Commercial Service is able to canvass a large number of local contacts to assess the attractiveness of new products to the local market.

We find that in many instances, particularly at the early stage, U.S. companies find it more economical to appoint an Australian distributor or sales agent, as opposed to setting up subsidiary operations. The level of technical sales and support is quite high and there are a number of local companies supporting one or more international manufacturers. The U.S. Commercial Service is able to provide assistance in locating distributors appropriate for a particular piece of equipment through our International Partner Search service.

Advertising in industry publications to raise awareness of a product or new technology innovation is a tactic used by many companies. The most widely read publication by the industry is *Plastic News International*. Details can be found at www.plasticsnews.net

OPPORTUNITIES FOR PROFILE BUILDING/UPCOMING TRADE EVENTS:

The largest specialty plastics show in Australia is the **Ausplas** show held every three years. Details of this show, which is due to be held next in 2008, can be found at www.ausplas.com

Australian contingents to international tradeshows such as NPE are also very common. To be put in contact with potential Australian delegates please contact the U.S. Commercial Service in Australia.

OTHER RESOURCES:

- Plastics and Chemicals Industries Association – www.pacia.org.au
- Packaging Council of Australia - www.packcoun.com.au
- Plastics Industry Pipe Association of Australia Limited - www.pipa.com.au
- Australian Society of Plastics Engineers - http://www.4spe.org/communities/sections/s99.php
- Vinyl Council of Australia - www.vinyl.org.au

CONTACT US:

If you would like to discuss the promotion and market entry of your plastic manufacturing technology or solution into the Australian market, the Commercial Service is ready to assist you. Please contact John McCaffrey, Commercial Specialist responsible for the plastics sector at: john.mccaffrey@mail.doc.gov. In addition, please visit our website to discover latest commercial developments in the Australian plastic industry: www.buyusa.gov/australia

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